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Food Aid Quality Review Phase II: Quarterly Technical Report No. 17

January 2020-March 2020

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Acronyms

AMS	Agricultural Marketing Service (USDA)
FACET	Food Assistance Cost-Effectiveness Tool (FAQR Decision Support Tool)
FAQR	Food Aid Quality Review
FBF	Fortified Blended Food
FFP	Office of Food for Peace (USAID)
FY 2020	Fiscal Year 2020
MAM	Moderate Acute Malnutrition
OY2	Option Year 2 (FAQR Phase III)
PI	Principal Investigator
REFINE	Research Engagement on Food Interventions for Nutritional Effectiveness
rstudio::conf	RStudio Conference
SNF	Specialized Nutritious Food
SNFP	Specialized Nutritious Food Product
TraceAID	Interagency Traceability Working Group (organized by USAID)
UN	United Nations
USAID	United States Agency for International Development
USDA	United States Department of Agriculture

Food Aid Quality Review (FAQR) Phase III: Quarterly Technical Report Summary

I. Summary

Covering the second quarter of Fiscal Year 2020 (hereafter FY 2020), this report documents the progress of FAQR overall, as well as detailing outputs and impacts of FAQR Phase III work.

Since its inception, the goal of the Food Aid Quality Review project has been to support the U.S. Government's humanitarian agenda by establishing evidence-based information systems, tools, and data-gathering and evidence-sharing platforms on food aid for nutrition. FAQR's activities and outputs will enable government-wide actions and public/private engagement around food aid to achieve greater cost-effectiveness for decades to come. For a detailed overview of all FAQR activities, see [Annex I](#).

This quarter, the team advanced FAQR objectives in the following areas:

1. Three peer-reviewed journal articles were published in February 2020 related to the *Burkina Faso Four Foods Effectiveness and Cost-Effectiveness Study on Prevention of Wasting and Stunting*.
2. The FAQR team submitted the *Bringing the USAID/FFP Food Assistance Resources Webpages Up to Industry Standards* and accompanying *USAID/FFP Website Content Map and Resource Database* to USAID/FFP for review.
3. The supply chain optimization team continued to build on the global warehousing and inventory positioning model and developed additional scenarios for optimizing in-country distribution networks and selection of discharge ports in Ethiopia and Eritrea. The supply chain team also began advising the TraceAID working group on supply chain factors impacting traceability.
4. Extensive feedback was received from a panel of external expert reviewers and incorporated into the Food Assistance Cost-Effectiveness Tool (FACET) interface and user manual. Final versions of the interface and user manual were prepared for USAID/FFP review.

FAQR Reports and Manuscripts Published January 1, 2020-March 31, 2020

1. Langlois, Breanne K., Ilana R. Cliffer, Laetitia Nikiema, Devika J. Suri, Franck Garanet, Ye Shen, Augustin N. Zeba, Shelley M. Walton, Hermann B. Lanou, Patrick Webb, and Beatrice L. Rogers. "Factors that May Influence the Effectiveness of 4 Specialized Nutritious Foods in the Prevention of Stunting and Wasting in Children Aged 6–23 Months in Burkina Faso." *Current Developments in Nutrition* 4, No. 2 (February 2020). <https://doi.org/10.1093/cdn/nzaa002>
2. Cliffer, Ilana R., Laetitia Nikiema, Breanne K. Langlois, Augustin N. Zeba, Ye Shen, Hermann B. Lanou, Devika J. Suri, Franck Garanet, Kenneth Chui, Stephen Vosti, Shelley Walton, Irwin Rosenberg, Patrick Webb, and Beatrice L. Rogers. "Cost-Effectiveness of 4 Specialized Nutritious Foods in the Prevention of Stunting and Wasting in Children Aged 6–23 Months in Burkina Faso: A Geographically Randomized Trial." *Current Developments in Nutrition* 4, No. 2 (February 2020). <https://doi.org/10.1093/cdn/nzaa006>
3. Shen, Ye, Ilana R. Cliffer, Devika J. Suri, Breanne K. Langlois, Stephen A. Vosti, Patrick Webb, and Beatrice L. Rogers. "Impact of stakeholder perspectives on cost-effectiveness estimates of four specialized nutritious foods for preventing stunting and wasting in children 6–23 months in Burkina Faso." *Nutrition Journal* 19, no. 20 (2020). <https://doi.org/10.1186/s12937-020-00535-x>
4. Schlossman, Nina, Rebecca Fisk, Elisabeth Learned, and Lindsey Ellis Green. "Bringing the USAID/FFP Food Assistance Resources Webpages Up to Industry Standards." Report to USAID. Boston, MA: Tufts University, 2020. (Pending USAID/FFP approval.)

II. Key Activities for the Period January 1, 2020-March 31, 2020

The activities listed below are selected to showcase some of the major accomplishments during the quarter. All workstreams had ongoing activities during this quarter.

A. Research Updates

Three peer-reviewed articles were published in February 2020 related to the *Burkina Faso Four Foods Effectiveness and Cost-Effectiveness Study on Prevention of Wasting and Stunting*, which compared four specialized nutritious foods (SNFs): Corn Soy Blend Plus with oil, Corn Soy Whey Blend with oil, Super Cereal Plus, and Ready-to-Use Supplementary Food. The first of these articles, [Factors that May Influence the Effectiveness of 4 Specialized Nutritious Foods in the Prevention of Stunting and Wasting in Children Aged 6–23 Months in Burkina Faso](#), explored differences in SNF use that may have influenced effectiveness, including preparation, storage, hygiene, sharing, and other diversions from the recipient child and was published in *Current Developments in Nutrition* in February.

Also published in the February issue of *Current Developments in Nutrition* was [Cost-Effectiveness of 4 Specialized Nutritious Foods in the Prevention of Stunting and Wasting in Children Aged 6–23 Months in Burkina Faso: A Geographically Randomized Trial](#), which compared the effects of each SNF on growth. Average costs per child reached were linked with effectiveness to compare the cost-effectiveness of each SNF with Corn Soy Blend Plus with oil. A third article, [Impact of Stakeholder Perspectives on Cost-Effectiveness Estimates of Four Specialized Nutritious Foods for Preventing](#)

[Stunting and Wasting in Children 6-23 Months in Burkina Faso](#), was published in *Nutrition Journal* in February and incorporated perspectives from multiple stakeholders, including caregivers and program volunteers, to determine that product cost and caregiver time to prepare study foods were major drivers of cross-arm cost differences.

B. USAID/FFP Website Report and Content Map

The final report on *Bringing the USAID/FFP Food Assistance Resources Webpages Up to Industry Standards* was submitted to USAID/FFP following a final review of the webpages conducted in January to ensure that all content and recommendations included in the report were up-to-date. A *USAID/FFP Website Content Map and Resource Database*, which catalogs all of the resources currently available on the Food Assistance Resources webpages, was also submitted to accompany the report. During Option Year I, the FAQR team: 1) conducted a thorough analysis of the current structure and content of the webpages; 2) reviewed previous recommendations related to the FFP website in FAQR reports over the course of Phase III of the project; and 3) surveyed FFP website users to determine how the website is currently used and to identify areas for improvement and barriers to use.

The key recommendations of the report are organized around six main themes: 1) implement a process for information updates and link checks; 2) improve technical guidance and analysis; 3) improve communications; 4) promote education on the procurement process and product innovation opportunities, and add a section with information and tools on food safety and quality assurance in the food assistance supply chain; 5) increase opportunities for institutional and historical learning; and 6) improve the organization of the Food Assistance Resources webpages as USAID/FFP and the Bureau for Humanitarian Assistance consolidate their web presence to support the new bureau's mission going forward.

C. Supply Chain Updates

The supply chain optimization team ran an initial scenario for the global warehouse and inventory positioning model with previously-identified potential global warehouse locations. Additional scenarios for the Ethiopian port study were also prepared, including a scenario involving two Eritrean discharge ports for food distribution to Ethiopia and a scenario that evaluates the impact of inaccurate demand forecasting on a long-term planning horizon. In the Eritrean port study, the in-country distribution network model was transitioned from a regional approach to a broader country approach to better understand the potential impact of adding two more discharge ports to the analysis. In addition, the supply chain team participated in the recently-established TraceAID working group meetings and provided guidance to members on traceability efforts from a supply chain perspective.

D. Food Assistance Cost-Effectiveness Tool (FACET) Updates

A panel of expert reviewers provided feedback on the interface and the User Manual for the Food Assistance Cost-Effectiveness Tool (FACET) in January. The panel included Katie Adams from the University of California, Davis, Saskia de Pee and Janosch Klemm from the World Food Programme, Caitlin Tulloch from the International Rescue Committee, and Chloe Puett, an independent consultant. This feedback was subsequently incorporated into the interface and User Manual, and final versions of both were prepared for final review by the USAID/FFP nutrition team and FAQR senior management.

III. Plans for the Coming Quarter (April 2020-June 2020)

The matrix below highlights some of the key planned activities for the coming quarter:

A. Commodity Incident Reporting/Traceability
<ul style="list-style-type: none"> • Participate in OY2 kick-off meeting with USAID/FFP to redefine the workstream based on current USAID/FFP priorities related to commodity incident reporting and traceability. • Commodity Incident Reporting Business Process: <ul style="list-style-type: none"> ○ Work with USAID/FFP to incorporate food safety questions into their Commodity Incident Reporting System based on the food safety and quality assurance questionnaire developed during Project Year 3. ○ Develop a plan and begin conducting interviews and other research to help USAID/FFP map out the existing commodity incident reporting business process. • Traceability: <ul style="list-style-type: none"> ○ Support TraceAID working group.
B. Supply Chain Optimization
<ul style="list-style-type: none"> • Supply Chain Oversight: <ul style="list-style-type: none"> ○ Participate in OY2 kick-off meeting with USAID/FFP to review previous supply chain team outputs, provide an overview of current workstream efforts, and discuss how the supply chain team could assist USAID/interagency traceability work and incorporate traceability into current research. • Scenario Building and Analysis: <ul style="list-style-type: none"> ○ Improve global warehouse and inventory positioning model network by using more realistic warehouse data and adding new commodities to the supply chain operations in the scenario. ○ Build scenario-based, stochastic planning algorithms to include emergency onset demand into the global warehouse network. ○ Extend the Eritrean port study by adding South Sudan, Somalia, Sudan, and Kenya to the inland distribution network. • Tool Development:

- Identify a roadmap for how to hand over the tool to USAID, to communicate actively with the Chief Information Officer's team, and to initialize the process.

C. Cost-Effectiveness

- Food Assistance Cost-Effectiveness Tool (FACET):
 - Participate in OY2 kick-off meeting with USAID/FFP to discuss current status of FACET and eventual handover to USAID/FFP.
 - Meet with appointed USAID/FFP contacts to move forward with the handover of FACET and to discuss key components of this process, including IT infrastructure, live exercises, related events, and historical demos.
 - Seek and address final feedback on FACET interface and user manual from the USAID/FFP nutrition team and FAQR senior management.
 - Develop quick reference guide to accompany the FACET user manual and to serve as a standalone reference for FACET users.
 - Develop video tutorials and example scenarios for potential users.
- Cost Methodology:
 - Submit cost-effectiveness manuscripts for Sierra Leone trial to peer-reviewed journals.

D. Research

- Sierra Leone MAM Treatment Study:
 - Submit draft reports to USAID for comment.
 - Draft manuscripts for submission to peer-reviewed academic journals.
- Data Mining Activity:
 - Participate in OY2 kick-off meeting with USAID/FFP to brainstorm additional research questions that could be applied to the existing data collected from FAQR field studies.
 - Begin analyses of field study data related to these research questions.

E. Interagency Communications and Harmonization

- U.S. Interagency:
 - Continue discussions with working group members on product specifications, packaging, food safety and quality assurance measures, and research.
 - Complete and submit sustainability report to document collaboration and achievements of working group to date and provide recommendations for sustaining efforts going forward.
- U.S.-Global Interagency (Harmonization):
 - Continue discussions with working group members to share updates.

- Conduct a series of remote meetings in May and continue holding monthly calls to encourage collaboration on priority areas related to programming, food safety and quality assurance, and traceability of specialized nutritious food products.
- Continue discussion of Secretariat transition with working group members.

F. Knowledge Sharing

- **REFINE:**
 - Disseminate quarterly Resource Review.
 - Update REFINE website with new resources on a monthly basis, and regularly tweet about those resources from REFINE Twitter account.
 - Continue sustainability planning for REFINE website.
- **Communications and Dissemination:**
 - Maintain and update FAQR website and Twitter account.
 - Share reports and information about events on FAQR website and Twitter.
 - Assist FAQR team members with report formatting and graphics.
- **2020 Evidence Summit:**
 - Participate in planning meeting with USAID/FFP to determine session themes and speakers.
 - Share 2020 Evidence Summit page on FAQR website to provide information about logistics and content and to enable web registration.
 - Promote upcoming Evidence Summit on websites and through Twitter account, as well as through partner organizations.

Annex I.

Overview of the Food Aid Quality Review (FAQR) Phase III Activities

For more information on FAQR Phase III, please visit the [FAQR website](#).¹

I. Background

The Food Aid Quality Review (FAQR) provides the United States Agency for International Development's (USAID) Office of Food for Peace (FFP) and its partners with actionable recommendations on ways to improve nutrition among vulnerable people for whom the direct distribution of food aid can make a significant impact. FAQR Phase I recommendations were published in [Delivering Improved Nutrition: Recommendations for Changes to U.S. Food Aid Products and Programs](#).² This report led to FAQR Phase II's focus on reformulating fortified blended foods (FBFs), the inclusion of lipid-based products in FFP's commodity list, and testing new products under field conditions. A full summary of FAQR Phase II accomplishments is highlighted in the [Food Aid Quality Review Phase II Closeout Report](#).³

FAQR Phase III⁴ focuses on generating links between research on food product formulation and recommendations on cost-effective programming and policy-level action among national and multilateral institutions engaged in food assistance. Tufts University's Friedman School of Nutrition Science and Policy is working closely with several domestic and international collaborators, including USAID, United States Department of Agriculture (USDA) and United Nations (UN) partners, all of whom are committed to strengthening the evidence base for the use of specialized nutritious foods (SNFs) for targeted nutrition goals. The work of FAQR Phase III is framed under three major topics related to food aid: **1) Products, 2) Programming, and 3) Processes.**

Products

With a view to making actionable recommendations to USAID, Tufts is examining a number of priority issues, such as how food matrices ("the nutrient and non-nutrient components of foods and their molecular relationship to each other"⁵) affect bioavailability of nutrients and digestibility of products; the potential for thermal/non-thermal processing technologies to improve food matrices; potential roles for existing products which are rarely used today, as well as new products (which may include fortificant powders) and novel packaging technologies to improve resistance to infestation, shelf life, and efficiency of handling; dual-use products for emergency response; and completion of the data collection, analysis and reporting on field studies which assess the effectiveness and cost-effectiveness of newly-formulated food products for the prevention and treatment of malnutrition in children.

¹ <http://foodaidquality.org>

² pdf.usaid.gov/pdf_docs/pnadz842.pdf

³ pdf.usaid.gov/pdf_docs/PA00M9B8.pdf

⁴ Contract awarded to Tufts University's Friedman School of Nutrition Science and Policy for the period covering Feb. 1, 2016-Jan. 31, 2019 with two option years.

⁵ Source: United States Department of Agriculture: National Agricultural Library (<https://agclass.nal.usda.gov>)

Programming

One important focus of FAQR field research and statistical modeling is the cost-effectiveness of various products used in operational settings. This includes strategy development for pre-positioned SNFPs, guidance on options for their use, elaboration of a strategy for responding to food needs in the initial stages of a sudden onset emergency, and dissemination of cost and cost-effectiveness calculation tools. FAQR is generating improved technical guidance, sharing details on research protocols used in testing new food aid products in the field, and making further progress in harmonizing product specifications among food aid donors.

Processes

FAQR Phase III provides recommendations to USAID on institutional and industry processes for capacity building, including the institutionalization and strengthening of interagency technical collaborations and mechanisms to ensure greater policy and product harmonization domestically and internationally. This work provides recommendations for enhanced supply chain oversight, establishes stronger and more user-friendly quality assurance feedback loops, and promotes food safety and quality standards which can also be applied to local and regional food procurement.

FAQR Phase III organizes its ongoing activities into the following workstreams:

([Additional information is available on the FAQR website⁶](#))

A	USAID/FFP Commodity Resource Website
B	Food Aid Safety and Quality Systems: Supply Chain Oversight
C	Cost-Effectiveness
D	Field Research
E	Interagency Communications and Harmonization
F	Knowledge Sharing

⁶ <https://foodaidquality.org/what-we-do>

Annex 2. Meetings and Events during the Period January 1, 2020-March 31, 2020

Select meetings include the following:

- **rstudio::conf 2020 (January 27-30, 2020)**

The FAQR Cost Specialist attended an RStudio conference (rstudio::conf 2020) held in San Francisco, including a two-day workshop on modern geospatial data analysis. The workshop provided training in geospatial data processing, analysis, and visualization using R. This topic is relevant to some research questions being explored as part of the FAQR data mining activity. Conference sessions also provided updates and training related to relevant R packages and the RStudio interface. Since the Food Assistance Cost-Effectiveness Tool (FACET) was developed using R software, including Shiny, the content of this conference has facilitated incorporating additional R programming edits into the final version of the FACET interface.

- **3rd Food Aid Packaging Solutions Workshop (March 3-5, 2020)**

FAQR team members attended the 3rd Food Aid Packaging Solutions Workshop hosted by Michigan State University in East Lansing, Michigan. The FAQR team will be helping to produce a report on the workshop with panelists and other participants and supporting the TraceAID workshop group on traceability that was formed at the event.

Annex 3. REFINE Twitter and Website Analytics

@REFINEnutrition Twitter Analytics (FY 2020 Q2)

Total Followers: 334

	Tweets ⁷	Retweets ⁸	Likes ⁹	Link Clicks ¹⁰	Tweet Impressions ¹¹
January	4	0	8	38	1287
February	0	0	1	3	858
March	0	0	1	3	674
TOTAL	4	0	10	46	2,819

www.refinenutrition.org Google Analytics (FY2020 Q2):

	Total Number of Sessions ¹²	New Sessions ¹³	Average Pages Per Session ¹⁴
January	449	368	2.20
February	178	134	2.18
March	214	169	1.67
TOTAL	841	671	2.02
Oct.-Dec. 2019	562	519	0.93

⁷ "Tweet:" a post made on Twitter.

⁸ "Retweet:" a repost or forwarding of a Tweet.

⁹ "Like:" an appreciation of a Tweet.

¹⁰ "Links Clicked:" the total number of clicks on a URL in a Tweet.

¹¹ "Impressions:" the total number of account Twitter streams a Tweet was delivered to.

¹² "Session:" a user's interaction on the site from the time a user logs onto the site until they are inactive on the site for 30 minutes.

¹³ "New Session:" a user's first visit to the site during that period of Google analytics.

¹⁴ "Average Pages Per Session:" average number of pages visited by a user during one session.

Annex 4. FAQR Twitter and Website Analytics

@foodaidquality Twitter Analytics (FY2020 Q2):

Total Followers: 238

	Tweets¹⁵	Retweets¹⁶	Likes¹⁷	Link Clicks¹⁸	Tweet Impressions¹⁹
January	1	2	6	8	4,681
February	0	0	1	12	3,868
March	1	4	4	5	4,798
TOTAL	2	6	11	25	13,347

www.foodaidquality.org Google Analytics (FY2020 Q2):

	Total Number of Sessions²⁰	New Sessions²¹	Average Pages Per Session²²
January	595	495	1.96
February	337	238	2.14
March	320	250	1.20
TOTAL	1,252	983	1.77
Oct.-Dec. 2019	710	541	2.40
Jan. 2017- Mar. 2020	11,332	7,624	2.48

¹⁵ "Tweet:" a posting made on Twitter

¹⁶ "Retweet:" a repost or forwarding of a Tweet

¹⁷ "Like:" an appreciation of a Tweet

¹⁸ "Links Clicked:" the total number of clicks on a URL in a Tweet

¹⁹ "Impressions:" the total number of account Twitter streams a Tweet was delivered to

²⁰ "Session:" a user's interaction on the site from the time a user logs onto the site until they are inactive on the site for 30 minutes

²¹ "New Session:" a user's first visit to the site during that period of Google analytics

²² "Average Pages Per Session:" average number of pages visited by a user during one session